

ABSTRACT

A system and method having applications in semiconductor areas for accurate die placement on a substrate that takes into account any positional offset from the reference position due to variations caused by thermal change and other
5 nonrandom systemic effects. The system includes an offset alignment tool having a plurality of internal reflection surfaces and located below a vision plane of the substrate, and an optical detector to receive an indirect image of a bottom surface of the die through the alignment tool, such that the die is accurately positioned on the substrate based on the indirect image received by the optical detector. The method
10 comprises the steps of providing a cornercube offset alignment tool having a plurality of total internal reflection surfaces below a vision plane of the die, and receiving an indirect image of the die tool through the cornercube offset tool.